CHAPTER 22

Kshara Varga

The word '*Kshara*' is used for the destruction or removal of the vitiated *Dosha* or toxins. *Kshara* is alkaline substance obtained from the ashes of the plants and having erosion property. In *Rasa* texts, *Kshara Dravya* is classified in the cluster of *Ksharadvaya, Ksharatraya, Kshara-panchaka* and *Ksharashtaka.*

Classification of *Kshara Varga*

The drugs of *Kshara Varga* can be classified in following category based upon their sources;

1. Mineral Origin - *Tankana, Suryakshara*
2. Marine Origin - *Shankha, Shukti, Varatika, Pravala*
3. Plant Origin - *Kshara* of *Sarjika, Yava, Snuhi, Palasha, Apamarga, Tila, Chincha* and *Arka*

SARJAKSHARA (Sodium bicarbonate)

Vernacular Name

Sanskrita: *Svarjika, Svarji, Svarja, Svarjaka, Svarji Kshara, Svarjika Kshara, Sarji, Sarjika, Suvarchika, Suvarchi, Suvarcho, Sukhorjika, Kapota, Sukhavarcha, Sukharjika, Ruchaka, Sauvarchala*

Hindi: *Sajji, Sajjikhara*

English: Sodium bicarbonate

Source: *Sarjikshara* is prepared from the plant known as *Duralabha* in Punjab and Sindha. It is also known as *Lota Sajji*.

In certain hills or in places adjacent to hills, layers of alkaline soil are to be found in abundance. This soil is called *Swarji Mrita*. (R.J.N. Vol 3, Chap 5, Pg No. 193)

The *Sarjika Kshara* which is obtained from the market should be purified by mixing it in water and decanting the water next day and filtering it 5-6 times with thick cloth and dried on fire.

Physical properties

Nature : Amorphous
Colour : White
Taste : Saline and burning
Solubility : Completely soluble in water producing a strongly alkali solution

Method of Preparation

उष्ट्रप्रियाक्षुपं दग्ध्वा यत्नात् क्षारं समाहरेत्।
तोयेऽष्टगुणिते क्षिप्त्वा भाजने विमले ततः॥
सप्तकृत्वः प्रयत्नेन स्रावयेत्पृथुवाससा।
स्रावितं सलिलञ्चाथ पचेद् गाढं भिषग्वरः॥
निःशेषे सलिले तत्र स्थालिकातलसंस्थितम्।
हिमकुन्देन्दुसङ्काशं सर्जिक्षारं समाहरेत्॥
(R.T.13/45-47)

Ash of burnt *Ushtrapriya* (*Duralabha*) is mixed with 8 times of water and kept for

overnight. Then supernate liquid is filtered through cloth for 7 times. This liquid is to be heated up to completely evaporation of watery contain, then scrap white colour *Swarji Kshara* from bottom of vessel.

केषुचिद् गिरिपृष्ठेषु भूतले वा तदीनतके।
दृश्यते क्षारमृतपूर्णं भूस्तरं भूरिमानतः॥
स्वर्जिमृत् कथ्यते तज्ज्ञ क्षारेतरपदार्थयुक्।
संगृह्य मृत्तिकां तां चट मृत्पात्रे स्थापयेत् ततः॥
चतुर्गुणजलेनैवं मृत्तिकां तां विलोडयेत्।
तन्नीरं स्त्रावयेद् यत्नाद् बहुशः पृथुवाससा॥
पूर्वेनोक्तप्रकारेण क्वाथयेत् तज्जलं ततः।
इत्थं संजायते क्षारः स्वर्जिकाह्वो मनोहरः॥

(R.J.N. Vol 3, Chap 5 Pg 193)

In certain hills or in places adjacent to hills, layers of alkaline soil are to be found in abundance. This soil is called *Swarji Mrit* (natron). It contains alkaline mud with foreign matters. Some quantity of this earth is to be dissolved with four times its weight of water. The solution is next to be decant for several times through a piece of thick cloth. The solution, thus decanted liquid, is next to be heated and condensed into solid alkaline substance, called *Swarji Kshara*.

Properties

तीक्ष्णोष्णो लघुरूक्षश्च क्लेदी पक्ता विदारणः।
दहनो दीपनश्छेत्ता सर्वक्षारोऽग्निसन्निभः॥

(Ch.Su.27/304)

ज्ञेयौ वह्निसमौ क्षारौ स्वर्जिकायावशूकजौ।
शुक्रश्लेष्मविबन्धार्शोगुल्मप्लीहविनाशनौ॥

(Su.Su.46/325)

सर्जिक्षारः स्मृतस्तीक्ष्णः कटुरुष्णश्च पाचनः।
समीरणहरः कामं कासश्वासनिवारणः॥
अग्निदीप्तिकरश्चैव गुल्माध्मानविनाशनः।
व्रणोदरामयहरः कृमिघ्नश्च प्रकीर्तितः॥

(R.T.13/48-49)

***Rasa*:** *Katu*

***Guna*:** *Ushna, Tikshna, Laghu, Ruksha*

***Virya*:** *Ushna*

***Doshaghnata*:** *Vatahara, Kaphanashaka*

***Karma*:** *Kledana, Pachana, Deepana, Chhedana, Krimighna*

Dose: 3 *Rati* to 12 *Rati* (375 mg to 1.5 gm) (R.T.13/50)

***Anupana*:** *Jala, Madhu, Vasa Svarasa, Guda*

Therapeutic uses

Shwasa, Kasa, Gulma, Adhmana, Udara Roga, Vibandha, Arsha, Pliha Roga, Vrana

Important formulations

Chitrakadi Vati, Chandraprabha Vati, Agnitundi Vati, Grahani Kapata Rasa, Hingvadi Churna

YAVAKSHARA (Potash carbonate)

Vernacular Name

Sanskrita: *Yavapatya, Yavajo, Yavashookaja, Yavyo, Yavagraja, Yavahya, Yavanalaja, Yaavashookaja, Yavashooka, Shookaja, Pakya*

Hindi: *Javakhar, Khar*

English: Impure or factitious of carbonate of Potash, Potash carbonate, salt of Tartar

Physical properties

Nature : Amorphous
Colour : White
Taste : Acridly Saline and cooling
Solubility : Completely soluble in water producing a strongly alkali solution

Method of Preparation

यवशूकभवं भस्म समादाय भिषग्वरः।
सलिलेऽष्टगुणे क्षिप्त्वा विमले भाजने ततः॥

सप्तवारं प्रयत्नेन स्रावयेत्पृथुवाससा।
स्रावितं सलिलञ्चाथ चुल्ल्यां तीव्राग्निना पचेत्॥
निःशेषं सलिलं ज्ञात्वा पाकपात्रतलस्थितम्।
यवक्षारं प्रयत्नेन गृह्णीयात्पाण्डुरप्रभम्॥
(R.T.13/3-5)

Ash of burnt *Yava Panchanga* is mixed with 8 times of water and kept for overnight. Then supernate liquid is filtered through cloth for 7 times. This liquid is to be heated up to completely evaporation of watery contain, then scrap whitish colour *Yava Kshara* from bottom of vessel.

Properties

हृत्पाण्डुग्रहणीरोगप्लीहानाहगलग्रहान्।
कासं कफजमर्शांसि यावशूको व्यपोहति॥
(Ch.Su.27/303)

ज्ञेयौ वह्निसमौ क्षारौ स्वर्जिकायावशूकजौ।
शुक्रश्लेष्मविबन्धार्शोगुल्मप्लीहविनाशनौ॥
(Su.Su.46/325)

यवक्षारो लघुः स्निग्धो दीपनः पाचनः परम्।
गुल्मप्लीहामयहरः कफहा वातनाशनः॥
शूलानाहोदराध्मानमूत्रवृच्छ्रप्रणाशनः।
कण्ठामयहरो हृद्यश्चाम्लपित्तहरः सरः॥
औपसर्गिकमेहोत्थफलशोथनिवारणः।
स्वेदप्रवर्तकश्चैव भिषग्भिर्मूत्रलो मतः॥
(R.T.13/6-8)

Rasa: *Katu*

Guna: *Laghu, Snigdha, Sara*

Virya: *Ushna*

Doshaghnata: *Kapha-Vata Nashaka*

Karma: *Deepana, Pachana, Mutrala, Hridya, Sweda Pravartaka*

Dose: 3 *Rati* to 10 *Rati* (375 mg to 1.25 gm) (R.T.13/9)

Anupana: *Jala, Madhu, Vasa Svarasa, Guda*

Therapeutic uses

Hrid Roga, Pandu, Grahani, Pliha Roga, Gala Roga, Kasa, Arsha, Vibandha, Gulma, Udara Roga, Amashoola, Ashmari, Mutrakrichchha, Vishadosha, Anaha, Adhmana, Kantha Roga, Amlapitta, Aupasargika Prameha, Shotha

Important formulations

Chitrakadi Vati, Agnitundi Vati, Vadvanala Rasa, Mahanaracha Rasa, Gulma Kalanala Rasa, Grahani Kapata Rasa

TANKANA (Borax)

Vernacular Name

Sanskrita: *Tankana, Tanka, Tanga, Tangana, Dravaka, Tankanakshara, Rangakshara, Ranga, Rangada, Lohashodhana, Swarnashodhana, Saubhagya, Sitakshara, Shwetakshara, Kshararaja, Dhatu Dravaka*

Hindi: *Suhaga*

English: Borax

Source

($Na_2B_4O_7$, 10 H_2O)

It occurs as deposits from volcanic emanations (fumaroles), hot springs and in dried up shallow basins (Playa) or saline lakes. It occurs mostly in the waters of various saline lakes in the salt deposits that have been formed through evaporation of such lakes. The origin of *Tankana* involves simple concentration and evaporation, which is accompanied by some chemical and mineralogical transformations to give rise to *Tankana* (borax). An evaporate mineral, it occurs associated with halites, sulphates, carbonates and other borates like ulexite and colemanite.

Economically workable deposits of *Tankana* are not yet discovered in India, and the domestic need is met by imports of crude borates, which are refined to produce *Tankana* and boric acid.

Occurrence

Small quantity of *Tankana,* since early times, however, was being obtained from salt lakes in Leh district of Jammu and Kashmir and Tibet, where it occurs today also. Non-exploitable occurrences of *Tankana* are known in Surendranagar district in Gujarat, Jaipur and Nagaur district in Rajasthan.

Mineralogical identification

Nature: Crystalline lumps
Colour: White
Streak: White
Cleavage: Poor
Fracture: Conchoidal
Lustre: Vitreous
Tenacity: Brittle
Transparency: Translucent
Hardness: 2 to 2.5
Specific Gravity: 1.65 to 1.7
Taste: Sweetish alkaline

Types

It is of two kinds (R.J.N. Vol 3, Chap 5 Pg 195);

1. *Pinda – Malina* (*Shweta*)
2. *Sadamaka – Shweta* (Pure white)

Niramalikarana

टङ्कणं चूर्णितं तोये तत्त्वसङ्ख्यगुणे भिषक्।
सन्द्राव्य वस्त्रपूतञ्च कृत्वा चुल्लयां निधापयेत्॥
तीव्राग्निना पचेत्कामं नीरं च परिशोषयेत्।
स्वल्पनीरांशशेषे च टङ्कणं निर्मलं हरेत्॥
(R.T.13/75-76)

Ashuddha Tankana Churna (1 part) + water (24 parts) → dissolve and filter through cotton cloth → give strong heat and evaporate all the water content → keep in sun light for complete drying → *Tankana Nirmalikarana*

Shodhana

सुचूर्णितं टङ्कणं तु खलु पञ्चपलोन्मितम्।
समुज्ज्वलोदरे क्षुद्रकटाहे विन्यसेत्ततः॥
चुल्लिकायां निधायाथ पचदे् दर्व्या प्रचालयन्।
सुपुष्पितं नष्टनीरं शुद्धिमायाति टङ्कणम्॥
(R.T.13/77-78)

Ashuddha Tankana → Convert into powder form and take into earthen saucer → give strong heat by occasional stirring → stop heating on complete evaporation of water portion and disappearance of sound → obtain white coloured puffy material → *Shuddha Tankana*

Properties

टङ्कणः कटुरुष्णश्च रूक्षस्तीक्ष्णश्च सारकः।
कफविश्लेषणो हृद्यो वातामयनिषूदनः॥
कासश्वासहरः कामं स्थावरादिविषापहः।
अग्निदीप्तिकरश्चापि भृशमाध्माननाशनः॥
स्त्रीपुष्पजननो बल्यो विविधव्रणनाशनः।
पित्तकृच्च समाख्यो मूढगर्भप्रवर्तकः॥
(R.T.13/79-81)

***Rasa*:** *Katu*

***Guna*:** *Ushna, Ruksha, Tikshna*

***Virya*:** *Ushna*

***Doshaghnata*:** *Kapha Vishleshaka, Vatanashaka*

***Karma*:** *Saraka, Deepana, Hridya, Balya, Pittakrut*

Dose: 3 *Rati* to 10 *Rati* (375 mg to 1.25 gm)

***Anupana*:** *Jala, Madhu, Vasa Svarasa, Guda*

Therapeutic uses

Shwasa, Kasa, Visha Nashaka, Adhmana, Stripushpa Janana, Mutrakrichchha, Vrana, Moodhagarbha

Ashuddha Tankana Sevanajanya Dosha

अशुद्धटङ्कणो वान्तिभ्रान्तिकारी प्रयोजितः।
(A.P.2/244)

Vanti, Bhranti

Dosha Shanti

Ardraka or *Tulasi Svarasa* for 3 days (R.Sam. Shodhana – Maranadi Prakarana 180)

Important formulations

Tribhuvanakirti Rasa, Ananda Bhairava Rasa, Ashwakanchuki Rasa, Agnitundi Vati, Arshakuthara Rasa, Grahani Kapata Rasa

SURYAKSHARA (Potassium nitrate)

Vernacular Name

Sanskrita: *Soraka, Sora, Saiveha, Mritkshara, Vahnikshara* (R.T.14/27)

Karpoora Shilajatu, Sweta Shilajatu (R.Mri.8)

Hindi: *Sora*

English: Potassium nitrate

Types

It is of two types;

1. *Sora* – in impure state
2. *Kalmi Sora* – in pure state

Nirmalikarana

Method

पलोन्मितं सोरकन्तु शीतले सलिले भिषक्।
चतुष्पलमिते क्षिप्त्वा वस्त्रपूतं पचेत्ततः॥
स्वल्पशेषं जलं ज्ञात्वा पात्रमुत्तारयेत्ततः।
विमलं चूर्णसङ्काशं सोरकन्तु समाहरेत्॥
(R.T.14/29-30)

Ashuddha Soraka Churna (1 part) + water (24 parts) → dissolve and filter → give strong heat and evaporate the water → the remaining water evaporate in sun light → *Soraka Nirmalikarana*

Shodhana

Method

सोरकं चूर्णितं खल्वे त्वेलातोयेन भावयेत्।
त्रिवारं भावनादेव शुद्धिमायात्यनुत्तमाम्॥
(R.T.14/35)

Ashuddha Soraka Churna → levigate with *Ela Svarasa* for 3 times → *Shuddha Soraka Churna*

Properties

पाण्डुरं सित्ताकारं कर्पूराद्यं शिलाजतु।
मूत्रकृच्छ्रश्मरीमेहकामलापाण्डुनाशनम्॥
(R.Mri.8/27)

सोरकः कटुकस्तीक्ष्णो विशेषाल्लवणः सरः।
वह्निप्रदीपकाऽत्युष्णस्त्वाग्नेयास्त्राथसिद्धिकृत्॥
(R.T.14/28)

सोरकः कटुकस्तीक्ष्णो विदग्धाजीर्णनाशनः।
अश्मरीमूत्रकृच्छ्राग्निमान्द्यापाण्डुप्रमेहनुत्॥
(R.T.14/36)

***Rasa*:** *Katu, Lavana*

***Guna*:** *Tikshna, Sara*

***Virya*:** *Ushna*

***Karma*:** *Deepana*

Dose: 2 *Rati* to 10 *Rati* (250 mg to 1.25 g) (R.T.14/37)

***Anupana*:** *Gokshura Kashaya, Mishreya Arka, Sharkara, Nimbu Svarasa*

Therapeutic uses

Vidagdhajirna, Ashmari, Adhmana, Mutrakrichchha, Agnimandhya, Pandu, Kamala, Prameha

Important formulations

Shweta Parpati, Nayanamritanjana, Sphatikadi Churna

CHAPTER 23

Miscellaneous

This chapter comprises of the drugs which are not included in any classification but their inevitable importance in the various mercurial processes and formulations they are enlisted here according to the new CCIM syllabus of second year BAMS.

Miscellaneous drugs include;

1. *Mandoora*
2. *Bola*
3. *Kasturi*
4. *Bhoonaga*
5. *Mayurapichchha*
6. *Sarjarasa*
7. *Madhoochchhishta*

MANDOORA (Iron oxide)

Vernacular Name

Sanskrita: *Kitta, Lohabhava, Lohakitta, Lohamala, Lohochchhishta, Lohasinghanika, Kitti, Sinhana*

Hindi: *Mandoora, Lohakitta*

English: Iron oxide

Source

ध्मायमानस्य लोहस्य मलं मण्डूरमुच्यते।
(A.P.3/285)

प्रतापितस्य लोहस्य घनाघातच्युतं मलम्।
कालेन पिण्डतां याति क्षितौ मण्डूरमुच्यते॥
(R.T.20/123)

When heated *Loha* is hammered, impurities (rust at the surface of iron) are eliminated. After long period on earth crust, it is found as lumpy mass which known is as *Lohamala* or *Mandoora*.

Mandoora is found naturally as the mineral magnetite. Iron ores contains high amounts of iron oxides such as magnetite (Fe_3O_4, 72.4%Fe), hematite (Fe_2O_3, 69.9%Fe) etc. There are four main types of iron-ore deposits viz, magnetite, titanomagnetite, massive hematite pisolitic ironstone deposits.

Occurrence

China is currently the consumer of iron ore. In India, it is mined from Jharkhanda, Odisha, Goa, Maharashtra, Andhra Pradesh, Kerala, Rajasthan and Tamil Nadu.

Mineralogical identification

Nature: Rough lumpy masses, exhibiting voids
Colour: Black
Streak: Black
Cleavage: None
Fracture: Conchoidal
Lustre: Dull
Tenacity: Brittle but hard
Transparency: Opaque
Magnetism: Non-magnetic
Hardness: 6 to 6.5

Specific Gravity: 3 to 3.8

Types

According to the varieties of *Loha, Mandoora* can also be divided into following three kinds;

1. *Munda*

ईषच्छोणं गुरु स्निग्धं मुण्डकिट्टं जगुर्बुधाः।
(A.P.3/287½)

Munda Mandoora is having slight red colour, heavy and smooth.

2. *Tikshna*

भिन्नाञ्जनप्रभं किट्टं विशेषाद् गुरु निर्व्रणम्।
निष्कोटरं च विज्ञेयं तीक्ष्णकिट्टं मनीषिभिः॥
(A.P.3/287-288½)

Tikshna Mandoora is having blackish colour as collyrium, heavy and non-porous.

3. *Kanta*

पिङ्गं रुक्षं गुरुतमं मन्ददीर्घमकोटरम्।
छिन्नं तु रजतच्छायं स्यात्किट्टं तत्तु कान्तजम्॥
(A.P.3/289½)

Kanta Mandoora is of brown colour, rough, more heavy, elongated, non-porous and on cutting silver like appearance.

The qualities of *Mandoora* can be varied according to its antiquity and divided into three ages category;

1. More than 100 years old : best – use for *Bhasma Nirmanartha*
2. 70-80 years : medium
3. Less than 60 years old : mediocre – similar to poison and not to use for medicinal purpose.

Grahyata and *Agrahyata*

अकोटरं गुरु स्निग्धं दृढं शतसमाधिकम्।
चिरोज्झितनस्थानसंस्थितं किट्टमाहरेत्॥
शतोत्थमुत्तमं किट्टं मध्यं चाशीतिवार्षिकम्।
अधमं षष्टिवर्षीयं ततो हीनं विषोपमम्॥
(A.P.3/289-290)

षष्टिवर्षीयमधमं मध्यं सप्ततिवार्षिकम्।
सर्वश्रेष्ठं समाख्यातं मण्डूरं शतवार्षिकम्॥
स्निग्धं गुरु दृढं चैव कृष्णं कोटरवर्जितम्।
जीर्णं नष्टपुरःस्थञ्च मण्डूरं ग्राह्यमुच्यते।
(R.T.20/125-126)

100 years old, smooth, heavy, solid, black, non-porous and obtained from the olden destroyed town are acceptable varieties of *Mandoora*.

Shodhana

Method

घ्मातं बिभीतकाङ्गारैर्गोमूत्रे परिषेचितम्।
सप्तवारं लोहमलं शुद्धिमायात्यनुत्तमाम्॥
(R.T.20/127)

Ashuddha Mandoora → heating by means of *Bibhitaka Angara* → *Nirvapa* (heating and quenching) in *Gomutra* (cow's urine) for 7 times → *Shuddha Mandoora*

Marana

Method

चूर्णीकृतं तु मण्डूरं त्रिफलाक्वथिताम्भसा।
सम्पेष्य सम्पुटे कृत्वा त्रिंशद्वारं ततः पुटेत्॥
एवं नातिचिरादेव रक्तचन्दनसप्रभम्।
मण्डूरं जायते तूर्णं ततो योगेषु योजयेत्॥
लोहमारकगणोदितैस्तु तैर्भेषजैरपि सह प्रपेषितम्।
लोहकिट्टमथ सम्पुटीकृतं पाचितं खलु समेति पञ्चताम्॥
(R.T.20/129-131)

Shuddha Mandoora Churna → rub with *Triphala Kvatha* or *Svarasa / Kvatha* of *Loha Maraka Gana* drugs till pelletization → subject to *Putapaka* for 30 times → *Rakta Chandana* like red coloured *Mandoora Bhasma*

Properties

यस्य लोहस्य ये प्रोक्ता तत्किट्टमपि तद्गुणम्॥
(A.P.3/286)

Mandoora possesses same properties like different varieties of *Loha*.

किट्टं कषायं शिशिरं पाण्डुश्वयथुशोफजित्।
हरते कामलां कुम्भकामलां च हलीमकम्॥
(A.P.3/293)

मण्डूरं सुमृतं वृष्यं शिशिरं रुचिरं परम्।
दीपनं पित्तशमनं रक्तवृद्धिकरं परम्॥
पाण्डुप्रमत्तमातङ्गमदमर्दनकेशरी ।
कामलाकुञ्जकुलिशं मण्डूरं तु विशेषतः॥
शोषप्रशमनञ्चैव तथा शोफप्रणाशनम्।
हलीमकं च प्लीहानं मण्डूरं हन्त्यशेषतः॥
(R.T.20/132-134)

Rasa: *Kashaya*

Guna: *Sheeta*

Virya: *Sheeta*

Doshaghnata: *Pittashamaka*

Karma: *Vrishya*, *Ruchikara*, *Deepana*, *Raktavriddhikara*

Dose: ¼ *Rati* to 2 *Rati* (31 mg to 250 mg) (R.T.20/135)

Anupana: *Punarnavashtaka Kvatha*, *Dashamoola Kvatha*, *Triphala Kvatha*

Therapeutic uses

Pandu, *Shotha*, *Kamala*, *Kumbhakamala*, *Halimaka*, *Pliha roga*

Important formulations

Mandoora Vataka, *Punarnava Mandoora*, *Tara Mandoora*, *Triphala Mandoora*

BOLA (Myrrh)

Vernacular Name

Sanskrita: *Gandharasa*, *Prana*, *Pinda*, *Goparasa*, *Indragopa Rasa*

Hindi: *Bol*, *Hirabol*

English: Myrrh

Prehistoric description

Myrrh is the oleo gum resin of plant *Commiphora myrrha* that has been regarded as one of the treasures of East for thousands of years. In the 5th century BCE, Herodotus noted that myrrh was used by the Egyptians for preserving cadaver. Egyptian woman also buried myrrh in pellets to red their homes of fleas. In ancient times myrrh was often buried to mask unwanted smell of bodies, animal's filth in the streets, sewage and other things. The boiled root was prescribed to improve strength in the elderly.

Botanical description

Botanical Names: *Commiphora myrrha* (Nees) Engl. or *Commiphora molmol* or *Balsamodendron myrrha*

Family: Burseraceae

Habitat: It is found abundantly in a native area North-Eastern America and also occurs in Arab, Persia, Abyssinia and Siam. The resinous product of Macca is considered best which is called 'Muemacci'.

Types

बोलं तु त्रिविधं प्रोक्तं रक्तं श्यामं मनुष्यजम्॥
(A.P.2/306)

It is of three types;

1. *Rakta*
2. *Shyama*
3. *Manushyaja*

Shodhana

Method

त्रिक्षारे लवणे देयमम्लवर्गे त्रिधापचेत्।
बोलं रक्तं तथा कृष्णं शुद्धन्ति न संशयः॥
(R.Sam.*Shodhana – Maranadi* Prakarana / 201)

Ashuddha Bola → *Swedana* (boil) with *Tri*

Kshara + *Lavana* + *Amla Varga* for 3 days → *Shuddha Bola*

Properties

बोलं रक्तहरं शीतं मेध्यं दीपनपाचनम्।
मधुरं कटुकं तिक्तं ग्रहखेदत्रिदोषनुत्॥
(A.P.2/307)

Rasa: *Madhura, Katu, Tikta*

Virya: *Sheeta*

Doshaghnata: *Tridoshahara*

Karma: *Medhya, Deepana, Pachana*

Dose: ½ to 1 gm (D.G.V. Vol.II, Dr. J.L.N. Shastry, Pg. No. 662)

Types	Guna	Virya	Karma	Doshaghnata
Rakta	*Sara*	–	*Garbhashaya Vishodhanam, Chakshushya*	–
Shyama	–	*Sheeta*	–	–
Manusha		*Sheeta*	*Vishanashaka, Bhagnasandhana, Dhatukanti, Vayasthairya, Ojovriddhikara*	*Tridosha Shamana*

Therapeutic uses

Rakta - *Jvara, Apasmara, Kushtha, Garbhashaya Vishodhana*

Shyama - *Dadru, Kandu, Visha, Bradhna, Apasmara, Kushtha, Arsha, Raktagranthi*

Manusha - *Sadhyovrana, Pramehapitika, Kushtha, Sarva Vrana*

Dosha Shanti

Gomutra (R.Sam. Shodhana – Maranadi Prakarana / 202)

Important formulations

Bolabaddha Rasa, Bola Parpati, Boladi Vati, Asthi Sandhanaka Lepa

KASTURI (Musk)

Vernacular Name

Sanskrita: *Kasturika, Mrigamada, Mridnabhi, Mrigaandhaja, Marjari, Vedhamukhya, Madani, Gandhachellika, Sahastravedhika, Shresthavedhika, Darpa, Sahastrabhit, Subhaga, Bahugandhada, Shyama, Kamananda, Kuranganabhi, Lalita, Shyamali, Kamamedi*

Hindi: *Kasturi*

English: Musk

Latin Name: *Moschus moschiferus*

Source

The musk deer belongs to the family *Moschidae* and lives in Nepal, India, Pakistan, China, Korea, Siberia and Mongolia. To obtain their musk, the deer is killed and its gland, also called "musk pod", is removed. Musk is secreted by the male adult deer only.

Kasturi is a dark resinous secretion moist or semi liquid in nature, present with ammonia like odour, collected in a small sac (pod) covered with hair, which is made by an infolding of skin situated a short distance behind the navel and in front of preputial orifice of the deer. It is secreted from the preputial follicles in the sac of the adult male musk deer during their breeding season only as a natural measure to attract the female deer with its characteristic aroma. The ejection of the secretion from the sac takes place through a small canal which is situated on the outer surface of the pod and opens near the preputial orifice.

Types

Kasturi is of three types viz, (B.P. Purvardha Karpuradi Varga, Pg No. 193)

1. *Kamarupodbhava* : *Krishna - Shreshtha*
2. *Naipali* : *Neelavarna - Madhyama*
3. *Kashmiri* : *Kapilachchhaya - Adhama*

Commercial Varieties

1. Tonquin Musk
2. Yanan Musk
3. Assam and Nepal Musk
4. Carbardine or Russian Musk

Characteristic

When *Kasturi* is free from moisture and ammonia, it yields a charming aroma. After being dried, it becomes granular which is soluble in water (50-75%) and alcohol (10-12%). Quality musk is dark purplish in colour and has a bitter aromatic taste and odour.

Chemical constituents

Ammonia, olein, cholesterin, fat, wax, gelatinous matter, albuminous substances, inorganic salts of sodium, potassium, calcium; and an aromatic volatile oil, muscone.

The smell of musk is identical with that of synthetic cyclopentadecanone and its methyl derivatives. Muscone, a constituent of *Kasturi* is a methyl derivative of the fifteen cyclic ketone.

Examination of *Kasturi*

स्वादे तिक्ता पिञ्जरा केतकीनां गन्धं धत्ते लाघवं तोलने च।
याऽप्सु न्यस्ता नैव वैवर्ण्यमीयात्कस्तूरी सा राजभोग्या प्रशस्ता॥

या गन्धं केतकीनामपहरति मदं सिन्धुराणाञ्च वर्णे स्वादे तिक्ता कटु र्वा लघुरथ तुलिता मर्दिता चिक्कणा स्यात्।
दाहं या नैति वह्नौ शिमिशिमिमिति चिरं चर्मगन्धा हुताशे सा कस्तूरी प्रशस्ता वरमृगतनुजा राजते राजभोग्या॥

(R.N.*Chandanadi Varga*/53-54)

Pure *Kasturi* is *Tikta*, yellowish in colour, yielding aroma like *Ketaki* (*Pandamus odoratissimus*) flower. When added to water, its colour does not change. If placed on fire, it emits a peculiar sound and burning skin odour.

Several methods adopted by the ancient physicians to detect pure *Kasturi* are as follows:

1. Some water is placed on hand and a very small amount of *Kasturi* is added to water. If the water immediately changes into red or yellow colour, then it is believed that the musk is impure, if not, then it is pure. But this test is not always dependable. When the blood of musk deer is mixed with pure musk, this test will be positive.
2. The experienced people who know the taste of pure *Kasturi*, can easily detect the musk, and can also detect the quality, impurity, etc.
3. If in a room, pure *Kasturi* is placed, the room will be filled with a charming aroma but the false musk will yield an unpleasant strong odour.
4. When pure *Kasturi* is rubbed by hands, the special aroma on the hands will persist for 2 to 4 hrs. If pure musk is added to any material, the material yields the same odour for a longer period.
5. Pure *Kasturi* cannot be burnt out by the fire, but yields a smell of burning skin
6. An interesting popular test for pure *Kasturi* has been reported by some workers. A cotton thread is passed through *Hingu* (*Asafoetida*) or through *Rasuna* (garlic) and again passed through the musk pod. After this, if the smell of *Hingu* (*Ferula assafoetida* Linn.) or garlic (*Alium sativum* Linn.) remains in the thread, the *Kasturi* is not considered to be genuine.
7. Few grains of *Kasturi* are placed on a live piece of charcoal. Pure musk melts and bubbles. If not, it at once becomes